OIPE IAP25
APR 19 2007
PATENT & TRADEMARK OFFICE

JFW AF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Ralph E. Sipple et al.

Serial No.: 09/304,906 Examiner: H. Tran

Filing Date: May 4, 1999 Group Art Unit: 2623

For: VIDEO SERVER

Docket No.: 33012/264/101

TRANSMITTAL SHEET

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

CERTIFICATE UNDER 37 C.F.R. 1.8:

I hereby certify that this correspondence and the documents described herein are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16th day of April, 2007

By Carolyn I. Erickson

We are transmitting herewith the attached:

☒ A check in the amount of $500.00 is enclosed.

☐ Small entity status of this application under 37 C.F.R. 1.9 and 1.27 has been established.

☒ Other: Appeal Brief in Triplicate.

☒ Please charge any deficiencies or credit any over payment in the enclosed fees to Deposit Account 14-0620.

By: _____
Wayne A. Sivertson
Reg. No. 25,645

NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
3433 Broadway Street N.E.
Minneapolis, Minnesota 55413
Telephone: (612) 331-1464
Facsimile: (612) 331-2239

OIPE IAP25
APR 19 2007
PATENT & TRADEMARK OFFICE

P A T E N T

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of	)	
	)	
Ralph E. Sipple et al	)	Examiner H. Tran
	)	
Serial No. 09/304,906	)	Group Art Unit 2623
	)	
Filing Date: 05/04/99	)	
	)	Docket No. 33012/264/101
	)	
For: VIDEO SERVER	)	
	)	**APPEAL BRIEF**

APPELLANT'S APPEAL BRIEF
FILED UNDER 37 C.F.R. § 41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

CERTIFICATE UNDER 37 C.F.R. 1.8: I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, Alexandria, VA, 22313-1450 on this

16th day of April, 20 07.

By Carolyn I. Erickson

This supplemental appeal brief is being filed in triplicate within 30 days of the Notice of Panel Decision from Pre-Appeal Brief Review mailed on March 14, 2007. Permission is hereby granted to charge or credit deposit account number 14-0620 for any

04/19/2007 HVUONG1 00000004 09304906
01 FC:1402 500.00 OP

errors in fee calculation. Appellants request this Appeal Brief be made of record and fully considered.

REAL PARTY IN INTEREST

The Real Party in interest is:

Unisys Corporation

Township Line and Union Meeting Roads

Blue Bell, Pennsylvania 19424

being the assignee of the entire right, title, and interest by all inventors, by way of assignment documents filed at Reel 9944, frame 0177, in the United States Patent and Trademark Office.

RELATED APPEALS AND INTERFERENCES

There are no known pending Appeals and/or Interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal. Therefore, there are no decisions to be placed in the attached Related Proceedings Appendix.

TABLE OF CONTENTS

STATUS OF CLAIMS

The subject patent application was filed on May 4, 1999 containing claims 1-20. Claims 21-25 were added by way of amendment filed October 12, 2004, One of more of claims 1-25 were amended by way of amendments filed October 8, 2003, October 12, 2004, December 13, 2004, June 28, 2005, November 22, 2005, December 22 2005, and July 6, 2006.

Though the applied prior art has varied over the course of prosecution, none of the pending claims has ever been found patentable over the prior art of record. Claims 1-25, herein appealed, stand finally rejected on October 5,2006 and are presented in the Claims Appendix, in the form existing at the time of that final rejection. It is the final rejection of claims 1-25 on October 5, 2006 from which Applicants appeal.

STATUS OF THE AMENDMENTS

Applicant has filed responses to official actions on October 8, 2003, October 12, 2004, December 13, 2004, June 28, 2005, November 22, 2005, December 22 2005, and July 6, 2006. As a result of these submissions, all requested amendments have been entered into the record. No Amendment After Final was filed in response to

the Final Office Action mailed October 5, 2006. Thus, pending claims 1-25, recorded herewith as Claims Appendix, are in the form of July 6, 2006 following submission of the last presented amendment.

SUMMARY OF CLAIMED SUBJECT MATTER [1]

The present invention generally relates to digital data transmission of video information and more particularly to the delivery of user selected video information to subscribing users[2].

The present invention overcomes many of the disadvantages found within the prior art by providing a video on demand system which separates the tasks of supplying video to subscribers from the tasks associated with managing the subscriber interface. The key to this approach is to provide an architecture in which the necessary functions are divided into two separate portions. A first hardware and software subsystem, called a video server, is specifically dedicated to retrieving and transmitting the stream of video information. Virtually no other functions are performed by the video server. A second hardware and software subsystem, called the transaction server, handles virtually all other functions including control interface with the subscribers, spooling of digitized video data, subscriber accounting, etc[3].

---

[1] The references to the specification and drawings provided herein are only exemplary and are not deemed to be limiting. The purpose of the references is to enable the Board to more quickly determine where the claimed subject matter is described within the present application.
[2]See Specification at page 1 lines 17-19.
[3]See Specification at page 7, lines 4-12.

The video server has two primary design criteria. First, it must be highly optimized to handle the extremely high input/output data rates. In essences, this is the sole function of the video server, and therefore the design of the video server hardware and software are most directed towards this characteristic. Because the role of the video subsystem is simplified and single dimensional, video subsystems utilizing current technology can be produced at a surprisingly low cost[4].

The second major design criterion of the video server subsystem involves modularity. The addition of active subscribers, each viewing individual video programs (or the same program at different times), tends to increase the total input/output load of the video server subsystem linearly. Therefore, there is great economic incentive to design the video server subsystem in such a manner that the hardware resources to implement the video subsystem may be linearly increased in relatively small (and inexpensive) increments[5].

Unlike the video server subsystem which is optimized to provide a low cost, highly modular approach to a single function the transaction server is optimized to provide a low cost approach to a wide and highly expandable variety of functions. In fact, all

---

[4]See Specification at page 7, lines 13-18.
[5]See Specification at page 7, line 19, through page 8, line 2.

of the functions of the video on demand system, except for the video streaming function performed by the video server, are accomplished by the transaction server. Typical tasks include transactional interface with the subscribers, subscriber fee accounting, requested program spooling, video server subsystem control, receiving video from a satellite and storing it in an archive, etc[6].

In accordance with the present invention, a subscribing user transfers a programming request to the transaction server. The transaction server makes the required subscriber accounting entry and notifies the corresponding preloaded video server platform of the new subscriber request. If the asset is not preloaded, in addition to the subscriber accounting, the transaction server must access the requested video program and spool it for storage in the video server subsystem[7].

Fig. 1 is a schematic diagram 10 showing the overall video on demand system of the present invention[8]. Fig. 2 is a schematic diagram showing the spooling of data from digital disk mass storage devices[9].

---

[6]See Specification at page 8, lines 14-20.
[7]See Specification at page 9, lines 2-7.
[8]See Specification at page 12, lines 4-5.
[9]See Specification at page 14, lines 2-3.

Fig. 4 is a schematic diagram 58 showing the synchronization of a given video program around one minute time slots. In concept, the present invention provides subscribers with video on demand. However, as a practical matter, by synchronizing multiple users around one minute time slots, the maximum number of transmissions to all users of the given video program cannot exceed 60 per hour of programming and 120 for a two hour standard video program. That means that for a given high volume program (which may be requested by hundreds or even thousands within the length of time to view the program) each requester is assigned to an appropriate time slot[10].

The reduction in total data requirements utilizing these one minute time slots is substantial. The total delay to a requester is no more than one minute and will average one half minute, making the process perfectly acceptable and barely noticeable to the subscribers[11].

Claim 11 is the only pending claim having "means-plus-function" limitations. Claim 11 has five such limitations which are correlated to Applicants' disclosure as follows:

a) "first requesting means"[12];

b) "second requesting means"[13];

---

[10]See Specification at page 16, lines 2-9.
[11]See Specification at page 16, lines 19-21.
[12]See Specification at page 12, lines 8-10 and Fig. 1, element 32.
[13]See Specification at page 16, lines 11-12, and Fig. 4, element 62.

c) "transaction processing means"[14];

d) "storing means"[15]; and

e) "video processing means"[16].

[14]See Specification at page 12, line 11, through page 13, line 3, and Fig. 1, element 12.
[15]See Specification at page 14, lines10-11, and Fig. 2, element 55.
[16]See Specification at page 13, lines 8-9, and Fig. 1, elements 20, 22,...., and 24.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Are claims 1-2, 4-6, 10-12, and 14-25 unpatentable under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,790,176 issued to Craig (hereinafter referred to as "Craig")?

2. Are claims 3, 7-9, and 13 unpatentable under 35 U.S.C. 103(a) as being obvious over Craig?

ARGUMENT

I. Claims 1-2, 4-6, 10-12, and 14-25 are not unpatentable under 35 U.S.C. 102(e) as being anticipated by Craig.

The standards for a finding of anticipation during examination are specified in MPEP 2131, which provides in part:

> TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM
> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). **"The identical invention must be shown in as complete detail as is contained in the ... claim."** *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (emphasis added)

The rejection is respectfully traversed because Craig does not show "the identical invention.....in as complete detail as is contained in the claim[s]".

As is highlighted throughout the specification and drawings, it is critical to Applicants' invention to employ an overall video on demand system architecture which promotes efficiency and modularity. Efficiency is greatly enhanced by handling the input/output intensive video streaming function with one or more relatively simple video processors having a first hardware and software architecture, and assigning the remainder of the data

processing functions to a relatively versatile and complex large scale computer having a different, second hardware and software architecture. Modularity is enhanced by this approach, because the additional input/output intensive video streams arising from an increased subscriber base are easily accommodated through the addition of more video processors. The load on the transaction processor, on the other hand, will be most easily increased by additional functionality, which is accommodated in a normal data processing approach by adding memory, instruction processors, and application software.

During operation, the video processor limits its activity to streaming video from a temporary memory to the subscribers. All other functions are performed by the transaction processor, including spooling requested video programs into the temporary memory. Thus, as the number of subscribers increases, the number of video processors can be easily increased. On the other hand, as the available on demand functions increase (e.g., larger video library, added gaming features, etc.), the multi-processor transaction server is increased in capacity by adding standard multi-processor system resources.

Efficiency is further enhanced by limiting the handling of the video programming data. The transaction processor handles the video program data only a single time in a non-real time fashion to

spool the requested program into the temporary memory. The video processors handle the video program data only a single time to stream the data from the temporary memory to the requester in real time. Thus, for a given request, the transaction processor at most handles the video program data once and the video processor handles the same video program data once.

I.A. Claim 1 is not anticipated by Craig.

Claim 1 is a Jepson-type independent apparatus claim having three major improvement elements. Craig has none of these three elements.

The first element is "a first processor having a **first hardware architecture** optimized to perform a variety of computational tasks **which spools said requested video data** in response to said request". In making his rejection, the Examiner states:

> A 1st processor (**350**, **370** of Fig. 2, 3A **or** gateway **572** of Fig. 5) having a 1st hardware architecture optimized to perform a variety of computational task (sic), which spools the requested video data in response to the request (**Col. 13, lines (sic) 45-Col. 14, lines (sic) 30**); (emphasis added)

Thus, the Examiner has apparently found that each of elements 350, 370, and 572 separately and individually correspond to the claimed "first processor", because he has chosen the disjunctive "or"

rather than the conjunctive "and". This finding is clearly erroneous, because none of these three elements (i.e., 360, 370, or 572) has any "hardware architecture" described by Craig, so none is taught to be "optimized to perform a variety of computational tasks" as claimed.

Even more apparent, none of elements 350, 370, or 572 "spools the requested video data" as claimed. Therefore, the Examiner provides an extensive citation (i.e., column 13, line 45, through column 14, line 30) which says nothing of the operation of element 572 and establishes that neither element 350 nor element 370 has anything to do with the claimed spooling function.

Concerning element 350, column 14, lines 21-23, of Craig states:

> Interactive Processor 350 processes incoming commands from subscribers sites **once a session is established** by the Gateway. (Emphasis added)

"Once a session is established" can only occur after spooling has been performed and streaming has begun.

Regarding element 370, Craig, column 14, lines 26-30, states:

> The incoming data is interrogated for content and selectively forwarded to the appropriate module for processing: Session Manager 310 for Video-on-Demand and other retrieval applications and **to Multi-Media Application Processor 370 for Multi-Media Application**. (Emphasis added)

Thus, Multi-Media Application Processor 370 does not even receive incoming Video-on-Demand data. Therefore, none of the alternative

elements of Craig (i.e., 350, 370, and 572) shows "the identical invention.....in as complete detail as is contained in the claim" as required by MPEP 2131.

Applicants have previously made this argument to the Examiner. In response, he has stated in his final rejection:

> One of ordinary skill in the art would recognize that the cited processors **inherently** have their hardware architecture optimized to perform varied computational tasks (see Col. 14, lines 21-30). If applicant disagrees with the Examiner (sic) assertion then **Applicant is requested to explain why** Craig processors 350 of Fig. 2, 3A, for example, does (sic) **not** have any hardware architecture optimized to perform varied computational tasks, as disclosed. Until then the Examiner maintains the rejection. (emphasis added)

It is readily apparent that Craig does not meet the requirements of MPEP 2131. This deficiency cannot be supplemented by a finding of "inherency" which does not meet the requirements of MPEP 2112, or in an attempt to shift the burden to Applicants. The Examiner's citation of Craig in particular and the references as a whole simply does not disclose the claimed elements.

The second claimed element is "a **video server memory** responsively **coupled to said first processor** in which said **spooled requested video data is stored**". In making his rejection, the Examiner cites Figs. 2 and 3B, element 270. Neither of these two Figures shows the claimed coupling to elements 350, 370 and 572 which are alleged by the Examiner to be the claimed "first

processor". Furthermore, neither of these Figures teaches the claimed storage of the spooled requested video data. Therefore, neither of these Figures shows "the identical invention.....in as complete detail as is contained in the claim" as required by MPEP 2131.

The third claimed element is "a **second processor** having a **second hardware architecture** different from said first hardware architecture **optimized to perform input/output operations** responsively coupled to said video server memory and said subscriber receiver which **accesses said spooled requested video data directly from said video server memory** without passing through said first processor and **streams said spooled requested video data** to said plurality of subscriber receivers in a plurality of streams spaced apart by a predetermined time".

Again, the Examiner has apparently found alternative elements (i.e., elements 330 and 541) to meet the limitations of Applicants' claimed third element (i.e., "second processor"). However, Craig says nothing of the architectures of these two elements, so it cannot be determined if they are optimized as claimed or if they are different from the claimed "first hardware architecture". Neither of these elements is even directly coupled to element 270 which the Examiner has found to be the claimed "video server memory". And neither of these elements is taught by Craig to

"stream" the "spooled requested video data" to the subscriber as claimed.

For some unexplained reason, the Examiner further cites column 13, lines 45-61, column 15, lines 8-20, and column 16, lines 60-65, of Craig. None of these citations mentions either element 330 or element 541. Therefore, neither of the alternative elements of Craig (i.e., 330 and 541) shows "the identical invention.....in as complete detail as is contained in the claim" as required by MPEP 2131.

Because Craig does not show any of the three claimed elements, the rejection of claim 1, and all claims depending therefrom, should be reversed for failure of Craig to meet the requirements of MPEP 2131.

I.B. Claim 2 is not anticipated by Craig.

Claim 2 depends from claim 1 and further limits the claimed "video server memory" to "a commercial computer memory platform". Having found that Craig element 270 corresponds to the claimed "video server memory". (see rejection of claim 1), the Examiner cannot possibly find that Craig meets this further limitation. Therefore, the Examiner cites Fig. 5 with associate memory, which has nothing to do with his finding of element 270 as the claimed "video server memory" and has nothing to do with the claimed

"commercial computer memory platform". The rejection of claim 2 should be reversed for failure of Craig to meet the requirements of MPEP 2131.

I.C. Claim 4 is not anticipated by Craig.

Claim 4 depends from claim 1 and further limits the claimed first processor to a "transaction server" coupled to a "subscribing receiver" and the "video server memory". Having previously found that elements 350, 370, and 572 each correspond to the claimed "first processor" (see rejection of claim 1), the Examiner appears to deem only element 572 appropriate to this further limitation of the claimed "first processor". In making his rejection, the Examiner cites Craig, column 16, lines 33-55, which clearly establishes that gateway 572 cannot meet the limitations of the claimed "first processors", because it does not "spool" requested video data, for example, as claimed. The rejection of claim 4 should be reversed.

I.D. Claim 5 is not anticipated by Craig.

Claim 5 depends from claim 4 and further limits the claimed "requested video data". As explained above, Craig cannot meet the limitations of claim 4 from which claim 5 depends. Therefore,

Craig cannot meet the limitations of claim 5. The rejection of claim 5 is respectfully traversed.

I.E. Claim 6 is not anticipated by Craig.

Claim 6 is an independent apparatus having four basic elements. In making his rejection, the Examiner states:

> Claim 6, is analyzed with respect to claims 1 and 4 in which **Craig further discloses two subscribing television receivers** (Fig. 1) each of which providing a separate spaced apart service request for a video program (Col. 16, lines (sic) 55-Col,17, lines (sic) 6). (Emphasis added)

Thus, in addition to the clearly erroneous findings of fact and errors of law utilized in rejecting claims 1 and 4, the Examiner adds to it alleging "Craig further discloses two subscribing television receivers" at Fig. 1. Craig actually shows two subscriber destinations 100 and 120, wherein each subscriber destination has a computer terminal 108 for receipt of multi-media transmissions. However, Craig does not have "two subscribing television receivers" as alleged by the Examiner.

The last claimed element is limited by "streams said spooled video program to said two subscribing television receivers as **two separate spaced apart streams from said copy of said video program** wherein said two separate spaced apart streams are spaced apart from each other by a time period which is greater than zero". This limitation is clearly not shown by Craig, so the Examiner has

apparently ignored the limitation. Instead, he cites Craig, column 16 line 55, through column 17, line 6, which discusses honoring multiple requests with the **same** "program output". The rejection of claim 6, and all claims depending therefrom, should be reversed.

I.F. Claim 10 is not anticipated by Craig.

Claim 10 depends from claim 6 and further limits the claimed transaction server. For the reasons stated above, Craig does not have the claimed transaction server. Therefore, Craig cannot have these further limitations. As a result, the Examiner cites Craig, column 16, lines 33-55, which is legally irrelevant, because it does not address Applicants' claimed invention. The rejection of claim 10 should be reversed.

I.G. Claim 11 is not anticipated by Craig.

Claim 11 is an independent apparatus claim having means-plus-function limitations. For the reasons discussed above, Craig does not have the claimed "transaction processing means" or the claimed "video processing means". Nevertheless, in rejecting claim 11, the Examiner finds:

> ...without passing the requested VOD program through the transaction processing means and from streaming the requested VOD program at a 1st time to the 1st requesting means and at a 2nd and later time to the 2nd requesting means (Col. 13, lines 45-61; Col. 15, lines 8-20; Col. 16, lines 60-65).

This statement is legally irrelevant, because it does not address the claimed limitation. The issue is not whether the more than one subscriber can be supplied data from the same stream as indicated at column 16, lines 64-65, but that multiple streams are produced from a single memory copy of the video data. Therefore, the rejection of claim 11, and all claims depending therefrom, should be reversed, because the Examiner admits that Craig does meet the limitations of the claim.

I.H. Claim 12 is not anticipated by Craig.

Claim 12 depends from claim 11 and further limits the "requesting means" to a "subscriber box". As explained above, Craig does not meet the limitations from claim 11. Therefore, Craig cannot meet the further limitations of claim 12 which depends therefrom. The rejection of claim 12 should be reversed.

I.I. Claim 14 is not anticipated by Craig.

Claim 14 depends from claim 13 and further limits the claimed "video processing means". The Examiner admits that Craig does not anticipate claim 13[17] from which claim 14 depends. Therefore, Craig does not anticipate claim 14, as a matter of law. The rejection of

[17]On page 16 of the pending final official action, the Examiner states: "Craig does not clearly disclose the industry (sic) computer (control server 570) is a standard personal computer.

claim 14 should be reversed as admittedly contrary to law on its face.

I.J. Claim 15 is not anticipated by Craig.

Claim 15 depends from claim 11 and further limits the claimed transaction processing means. For the reasons stated above, Craig does not have the claimed transaction processing means. Therefore, Craig cannot have these further limitations. The rejection of claim 15 should be reversed.

I.K. Claim 16 is not anticipated by Craig.

Claim 16 is an independent method claim having five basic steps. Craig does not meet elements c, d, or e, (i.e., "spooling" and two "streaming" steps), because Craig does not have the two different architectures for the transaction and video processors and because Craig does not produce two streams directly from the same memory copy of the video program as claimed. The rejection of claim 16, and all claims depending therefrom, should be reversed.

I.L. Claim 17 is not anticipated by Craig.

Claim 17 depends from claim 16 and further limits the two streaming steps. Craig cannot meet this limitation because it has no provision to service two non-coincident requests from two

streams out of the same memory copy of the video program as claimed. Therefore, the Examiner cites Craig column 15, lines 10-27, which is legally irrelevant, because it does not address Applicants' claimed invention. The rejection of claim 17 should be reversed.

I.M. Claim 18 is not anticipated by Craig.

Claim 18 depends from claim 17 and further defines the criterion for determining whether to generate one or two streams. Notwithstanding the Examiner's legally irrelevant statements relating to hardware passband limitations, Craig has no provision for this functionality. Therefore, the Examiner cites material associated with servicing more than one requester from the **same** transfer. The rejection of claim 18 should be reversed.

I.N. Claim 19 is not anticipated by Craig.

Claim 19 depends from claim 17 and is further limited by a "fast forward" streaming option. For the reasons stated above, Craig does not have this function because Craig employs a different and less efficient transmission technique. The rejection of claim 19 should be reversed.

I.O. Claim 20 is not anticipated by Craig.

Claim 20 depends from claim 17 and is further limited by "performing subscriber accounting to enable billing said first subscriber for said video on demand request". In making his rejection, the Examiner cites Craig, column 7, lines 9-12, which states:

> The session manager also maintains a record of relevant data regarding each session which is forwarded to a customer billing system.

Thus, the Examiner's rejection is legally irrelevant, because it does not address Applicants' invention. The claim requires "performing subscriber accounting....". Craig simply collects data. The rejection of claim 20 should be reversed for failure of Craig to meet the requirements of MPEP 2131.

I.P. Claim 21 is not anticipated by Craig.

Claim 21, has been analyzed by the Examiner with respect to claim 11 in accordance with his admission. However, claim 11 is an independent apparatus claim having means-plus-function limitations. As such, it must be examined in accordance with MPEP 2181 et seq. Claim 21 does not have means-plus-function limitations. Therefore, claim 21 is not to be examined in accordance with MPEP 2181 et seq as a matter of law. The Examiner has been reminded of the legal distinction between claims 11 and 21 and has apparently chosen to ignore

controlling law. The rejection of claim 21 should be reversed as not properly examined.

I.Q. Claim 22 is not anticipated by Craig.

Claim 22 depends from claim 21. Claim 22 further limits the first architecture. As explained above, Craig discloses nothing of the architectures of the various computational components. The rejection of claim 22 should be reversed.

I.R. Claim 23 is not anticipated by Craig.

Claim 23 depends from claim 21. Claim 23 further limits the second architecture. As explained above, Craig says nothing of the architectures of the various computational components. The rejection of claim 23 should be reversed.

I.S. Claim 24 is not anticipated by Craig.

Claim 24 depends from claim 21 and further limits the memory. For the reasons stated above, Craig does not have the claimed memory. Therefore, Craig cannot have these further limitations to the claimed memory. The rejection of claim 24 should be reversed.

I.T. Claim 25 is not anticipated by Craig.

Claim 25 depends from claim 24 and further limits the claimed memory. For the reasons stated above, Craig does not have the claimed memory. Therefore, Craig cannot have these further limitations. The rejection of claim 25 should be reversed.

II. Claims 3, 7-9, and 13 are not unpatentable under 35 U.S.C. 103(a) as being obvious over Craig.

The rejection of claims 3, 7-9, and 13, is respectfully traversed for failure of the Examiner to present a *prima facie* case of obviousness as specified by MPEP 2143.

To make a *prima facie* case of obviousness, MPEP 2143 requires the Examiner to provide evidence and argument showing: 1)motivation to make the alleged combination; 2)reasonable likelihood of success of the alleged combination; and 3)all claimed elements within the alleged combination. The Examiner has failed to make any of these three required showings. Therefore, because the Examiner has not made a *prima facie* case of obviousness, Applicants need not and indeed cannot offer appropriate evidence and argument in rebuttal.

In an apparent attempt to show motivation, the Examiner states:

> Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Craig's processor with "Windows NT based processor", i.e., Intel processor, so (sic) to take the advantage of the well known Intel processor that is fully

> compatible with Windows NT OS for reducing cost of maintenance and operation.

This statement is clearly erroneous in that Windows NT operates on machines which are not Intel processors.

More significant is that Craig specifically teaches against the modification alleged by the Examiner. Column 6, lines 58-64, states:

> The function of establishing and monitoring connections linking a video library port transmitting selected information with the end user ports receiving the information is performed by a supervisory controller such as a network control system, e.g., FLEXCOM software, used to control the electronic digital cross-connect switches (DCS) in the PSTN.

The prior art contains no suggestion to change the controlling software to Windows NT as claimed. Therefore, the Examiner has failed to show motivation.

There is no showing that the system of Craig could even operate at all in view of the alleged modification. Furthermore, the Examiner has not shown any reasonable likelihood of success as required by MPEP 2143.

II.A. Claim 3 is not unpatentable over Craig.

Claim 3 depends from claim 2 and further limits the claimed second processor. As explained above, Craig does not disclose the claimed second processor. Therefore, Craig cannot have these further limitations. The rejection of claim 3 should be reversed

for failure of the Examiner to make any of the three showings required to present a *prima facie* case of obviousness.

II.B. Claim 7 is not unpatentable over Craig.

Claim 7 depends from claim 6 and further limits the claimed video processor. For the reasons stated above, Craig does not have the claimed video processor. Therefore, Craig cannot have these further limitations. The rejection of claim 7 should be reversed.

II.C. Claim 8 is not unpatentable over Craig.

Claim 8 depends from claim 7 and further limits the claimed memory. For the reasons stated above, Craig does not have the claimed memory. Therefore, Craig cannot have these further limitations. The rejection of claim 8 should be reversed.

II.D. Claim 9 is not unpatentable over Craig.

Claim 9 depends from claim 8 and further limits the format of the video program. As explained above, Craig cannot meet the limitations of claim 8. Therefore, Craig cannot meet the further limitations of claim 9. The rejection of claim 9 should be reversed.

II.E. Claim 13 is not unpatentable over Craig.

Claim 13 depends from claim 12 and further limits the claimed video processing means. For the reasons stated above, Craig does not have the claimed video processing means. Therefore, Craig cannot have these further limitations. The rejection of claim 13 should be reversed.

CONCLUSION

Having thus reviewed the final rejections of claims 1-25, being all pending claims, it seems abundantly clear that the limitations of these claims are not unpatentable in view of the prior art of record. Thus, the rejection of these claims should be reversed as being based upon clearly erroneous fact findings and errors of law.

Respectfully submitted

Ralph E. Sipple et al.

By their attorney,

Date Apr. 16, 2007

Wayne A. Sivertson
Reg. No. 25,645
Suite 401,Broadway Place East
3433 Broadway Street N.E.
Minneapolis, MN 55413
(612) 331-1464

CLAIMS APPENDIX

1. In a video on demand system for supplying requested video data to a plurality of subscriber receivers, the improvement comprising:

a. a first processor having a first hardware architecture optimized to perform a variety of computational tasks which spools said requested video data in response to said request;

b. a video server memory responsively coupled to said first processor in which said spooled requested video data is stored; and

c. a second processor having a second hardware architecture different from said first hardware architecture optimized to perform input/output operations responsively coupled to said video server memory and said subscriber receiver which accesses said spooled requested video data directly from said video server memory without passing through said first processor and streams said spooled requested video data to said plurality of subscriber receivers in a plurality of streams spaced apart by a predetermined time.

2. The video on demand system of claim 1 wherein video server memory further comprises a commercial computer memory platform.

3. The video on demand system of claim 2 wherein said second processor further comprises an industry compatible, Windows NT based processor.

4, The video on demand system of claim 1 wherein said first processor further comprises a transaction server responsively coupled to said subscribing receiver and said video server memory.

5. The video on demand system of claim 4 wherein said requested video data further comprises MPEG-2 format.

6. An apparatus comprising:

a. two subscribing television receivers each of which providing a separate spaced apart service request for a video program;

b. A transaction server with a processor having a first hardware architecture responsively coupled to said two subscribing television receivers;

c. A memory responsively coupled to said transaction server having a copy of said video program in spooled form by said transaction server in response to said service request; and

d. A video processor having a second hardware architecture different from said first hardware architecture and optimized for

efficiently performing input-output operations responsively coupled to said memory and said two subscribing cable television receivers which accesses said spooled video program directly from said memory without passing through said transaction server and streams said spooled video program to said two subscribing television receivers as two separate spaced apart streams from said copy of said video program wherein said two separate spaced apart streams are spaced apart from each other by a time period which is greater than zero.

7. An apparatus according to claim 6 wherein said video processor comprises an industry compatible, Windows NT based processor.

8. An apparatus according to claim 7 wherein said memory comprises a commercial computer memory platform.

9. An apparatus according to claim 8 wherein said spooled video program further comprises MPEG-2.

10. An apparatus according to claim 6 wherein said first architecture of said transaction server is optimized about a variety of processing operations.

11. A video on demand system comprising:

a. First requesting means for requesting a video on demand program at a first time;

b. Second requesting means for requesting said video on demand program at a later second time;

c. Transaction processing means having a first hardware and software architecture optimized about a variety of processing operations responsively coupled to said first requesting means and said second requesting means for spooling said video on demand program;

d. Storing means responsively coupled to said transaction processing means for storing a copy of said spooled video on demand program; and

e. Video processing means having a second hardware and software architecture different from said first hardware and software architecture and optimized about input/output processing responsively coupled to said storing means for accessing said requested video on demand program twice directly from said copy stored within said storing means without passing said requested video on demand program through said transaction processing means and from streaming said requested video on demand program at a first time to said first requesting means and at a second and later time to said second requesting means.

12. A video on demand system according to claim 11 wherein said first requesting means further comprises a subscriber box.

13. A video on demand system according to claim 12 wherein said video processing means further comprises an industry standard personal computer.

14. A video on demand system according to claim 13 wherein said storing means further comprises a commercial computer memory platform.

15. A video on demand system according to claim 11 wherein said transaction processing means further comprises a transaction subsystem for managing archival storage of video streams in a hierarchical storage management system that is integrated with the management application and requires no manual intervention.

16. A method of providing video on demand services comprising:

a. Generating a video on demand request from a first subscriber at a first time;

b. Generating said video on demand request from a second subscriber at a second later time;

c. Spooling a single copy of a video program corresponding to said video on demand request into a memory by a transaction processor having a first hardware and software architecture;

d. streaming said corresponding video program directly from said single copy of said video program to said first subscriber at a third time by a video processor having a second hardware and software architecture; and

e. streaming said corresponding video program directly from said single copy of said video program to said second subscriber beginning at a time difference from and later than said third time by said video processor.

17. A method according to claim 16 further comprising:

a. streaming said corresponding video program to said first subscriber at said third time and streaming said corresponding video program to said second subscriber at a fourth time if said difference between said second later time and said first time is greater than a predetermined interval.

18. A method according to claim 17 wherein said predetermined interval further comprises about one minute.

19. A method according to claim 17 further comprising:

a. Fast forwarding said streaming to said first subscriber in response to a fast forward from said first subscriber.

20. A method according to claim 17 wherein said processing step further comprises:

a. Performing subscriber accounting to enable billing said first subscriber for said video on demand request.

21. A system for providing video on demand services comprising:

a. A subscriber receiver which requests a video program;

b. A transaction processor having a first hardware and software architecture responsively coupled to said subscriber receiver which spools said video program in response to said video program request;

c. A memory responsively coupled to said transaction processor which stores said spooled video program; and

d. A video server having a second hardware and software architecture different from said first hardware and software architecture responsively coupled to said memory and said subscriber receiver which directly accesses said spooled video program directly from said memory without passing through said transaction processor and streams said spooled video program to said subscriber receiver.

22. A system according to claim 21 wherein said first hardware and software architecture is optimized for a variety of transaction processing tasks.

23. A system according to claim 21 wherein said second hardware and software architecture is optimized for input/output processing.

24. A system according to claim 21 A system according to claim 23 wherein said memory is a temporary memory for storage of said video program from said spooling to said streaming.

25. A system according to claim 24 wherein said memory further comprises a commercial computer memory platform.

EVIDENCE APPENDIX

There is no evidence deemed appropriate to be included in this Appendix.

RELATED PROCEEDINGS APPENDIX

There are no decisions or other papers deemed appropriate to be included in this Appendix.